

AMENDMENT TO THE CLAIMS

1. (currently amended) A computer readable storage media storing instructions readable by a computer which, when implemented, cause the computer to resolve an overlapping ambiguity string in an input sentence of an unsegmented language by performing steps a method comprising:

segmenting the sentence of Chinese characters into two possible segmentations constituent Chinese words having one or more Chinese characters;

recognizing an overlapping ambiguity string in the segmented input sentence, wherein the overlapping ambiguity string comprises at least three Chinese characters having at least two possible segmentations as a function of the two segmentations;

obtaining probability information based on at least one context feature adjacent the overlapping ambiguity string; and

outputting an indication for selecting one of the at least two possible segmentations as a function of the obtained probability information.
2. (Previously presented) The computer readable storage media of claim 1, wherein obtaining the probability information comprises obtaining probability information from a language model based on the at least one context feature and a left or right portion of the overlapping ambiguity string.
3. (Previously presented) The computer readable storage media of claim 2 wherein the language model comprises a trigram model.
4. (currently amended) The computer readable storage media of

claim 2 wherein outputting an indication for selecting one of the at least two possible segmentations comprises classifying the probability information.

5. (Previously presented) The computer readable storage media of claim 4 wherein classifying comprises classifying using Naïve Bayesian Classification.

6. (Previously presented) The computer readable storage media of claim 1 wherein segmenting the sentence comprises performing a Forward Maximum Matching (FMM) segmentation of the input sentence and a Backward Maximum Matching (BMM) segmentation of the input sentence.

7. (Previously presented) The computer readable storage media of claim 6 wherein recognizing the overlapping ambiguity string comprises recognizing a segmentation  $O_f$  of the overlapping ambiguity string from the FMM segmentation and a segmentation  $O_b$  of the overlapping ambiguity string from the BMM segmentation.

8. (currently amended) The computer readable storage media of claim 7, wherein outputting the indication comprises selecting one of the at least two segmentations as is a function of a set of context features surrounding associated with the overlapping ambiguity string.

9. (currently amended) The computer readable storage media of claim 8 wherein the set of context features comprises words or grammatical features surrounding the overlapping ambiguity string.

10. (currently amended) The computer readable storage media of claim 8, wherein outputting the indication selecting one of the two segmentations comprises classifying the probability information of the set of context features and  $O_f$ .

11. (currently amended) The computer readable storage media of claim 8,10 wherein outputting the indication selecting one of the two segmentations comprises classifying the probability information of the set of context features and  $O_b$ .

12. (currently amended) The computer readable storage media of claim 8, outputting the indication comprises wherein selecting comprising determining which of  $O_f$  or  $O_b$  has a higher probability as a function of the set of context features.

13. (cancelled)

14. (Currently amended) A method of segmentation of a sentence of Chinese textan unsegmented language, the sentence having an overlapping ambiguity string (OAS), the method comprising:

generating a Forward Maximum Matching (FMM) segmentation of the sentence;

generating a Backward Maximum Matching (BMM) segmentation of the sentence;

recognizing the overlapping ambiguity string based on a difference between the FMM segmentation and the BMM segmentation;

obtaining probability information based on at least one context feature surrounding the overlapping ambiguity string and at least part of the overlapping ambiguity string recognized OAS for each of the FMM and BMM; and

outputting an indication for selecting one of the FMM segmentation and the BMM segmentation as a function of obtained probability information.

15. (Previously presented) The method of claim 14 wherein outputting includes selecting one of the FMM segmentation of the overlapping ambiguity string and the BMM segmentation of the overlapping ambiguity string based on higher probability.

16. (Previously presented) The method of claim 15 wherein obtaining probability information comprises using an N-gram model.

17. (Previously presented) The method of claim 16 wherein obtaining probability information comprises obtaining probability information about a first word of the overlapping ambiguity string.

18. (currently amended) The method of claim 16,<sup>,17</sup> wherein obtaining probability information comprises using probability information about a last word of the overlapping ambiguity string.

19. (currently amended) The method of claim 16, wherein obtaining probability information comprises using the N-gram model that includes probability ~~comprises using~~ information for about context words surrounding ~~around~~ the overlapping ambiguity string.

20. (currently amended) The method of claim 16, wherein using the N-gram model comprises using trigram probability information about a string of words comprising a first word of the

overlapping ambiguity string and two context words to the left of the first word.

21. (currently amended) The method of claim 1620, wherein using the N-gram model comprises using trigram probability information about a string of words comprising a last word of the overlapping ambiguity string and two context words to the right of the last word.

22. (currently amended) The method of claim 14,15 wherein outputting includes using Naïve Bayesian Classifiers.

23. (currently amended) The method of claim 14, wherein obtaining probability information comprises and further comprising receiving obtaining trigram probability information and constructing an ensemble of Naive Bayesian Classifiers from the trigram probability information from a lexical knowledge base comprising a trigram model.

24. (currently amended) The method of claim 23, wherein outputting an indication comprises identifying one of the FMM segmentation and the BMM segmentation based on probability calculated from the and further comprising receiving an ensemble of Naive Bayesian Classifiers.

25. (currently amended) A method of segmenting a sentence of Chinese text constructing information to resolve overlapping ambiguity strings in an unsegmented language comprising:  
recognizing an overlapping ambiguity string strings in the sentence a training data;  
replacing the overlapping ambiguity strings with tokens;

receiving probability information from generating an N-gram language model comprising probability information for constituent words of the overlapping ambiguity stringstrings and context features surrounding the overlapping ambiguity string;  
resolving the overlapping ambiguity string based on the received probability informationstrings.

26. (currently amended) The method of claim 25, wherein receiving probability information comprises receiving probability information from generating the N-gram language model comprises generating a trigram language model.

27. (currently amended) The method of claim 25, and further comprising generating an ensemble of classifiers with the received probability informationas a function of the N-gram model.

28. (currently amended) The method of claim 25, wherein recognizing the overlapping ambiguity stringstrings comprises:  
generating a Forward Maximum Matching (FMM) segmentation for the of each sentence in the training data;  
generating a Backward Maximum Matching (BMM) segmentation for theof each sentence in the training data;  
recognizing the overlapping ambiguity string basedan OAS as a function of on the FMM segmentation and the BMM segmentationsegmentations of theeach sentence in the training data.

29. (Original) The method of claim 28 and further comprising generating an ensemble of classifiers as a function of the N-gram model.

30. (currently amended) The method of claim 29 wherein generating the ensemble of classifiers includes approximating probabilities of the FMM and BMM segmentations of the~~each~~ overlapping ambiguity string as being equal to the product of individual unigram probabilities of individual words in the FMM and BMM segmentations ~~respectively~~, of the overlapping ambiguity string.

31. (currently amended) The method of claim 29, 30 wherein generating the ensemble of classifiers includes approximating a joint probability of a set of context features conditioned on an existence of one of the segmentations of the~~each~~ overlapping ambiguity string based on~~as a function of~~ a corresponding probability of a leftmost and a rightmost word of the corresponding overlapping ambiguity string.